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The Claims:

1. An electrical connection device for connecting a multi-core machine cable to a suitable other electrical device, the multi-core machine cable being of the type having insulated cores individually surrounded by earth-potential layers, the device comprising:

a body having an end-face, the end-face having apertures,

10 a plurality of insulating sleeves extending about respective apertures,

a plurality of core coupling means each being at least in part positioned in a respective sleeve, each core coupling means being connectable to a respective core of the machine cable and having a first contact surface for connecting to a terminal of the suitable other electrical device so as to provide electrical connections of the machine cable with the suitable other electrical device,

20 a plurality of spaced apart earth coupling means surrounding at least a portion of respective insulating sleeves, each earth coupling means being connectable to a respective earth-potential layer of the machine cable and having a second contact surface for connecting to an earth potential terminal of the suitable other electrical device so that within the electrical connection device the core coupling means are earth-potential screened from one another.

2. The electrical connection device as claimed in claim 1 wherein each core coupling means is surrounded by a respective insulating sleeve and by a respective conductive layer.

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3. The electrical connection device as claimed in claim 1 or 2 arranged such that, within the body, each core and the respective core coupling means are, in use, surrounded by a respective conductive layer or by the earth potential
5 layer of the respective core.

4. The electrical connection device as claimed in any one of the preceding claims wherein each insulating sleeve is surrounded along its length by a respective conductive
10 layer.

5. The electrical connection device as claimed in any one of the preceding claims wherein the core coupling means comprises a pin.
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6. The electrical connection device as claimed in any one of claims 1 to 4 wherein the core coupling means comprises a socket.

20 7. The electrical connection device as claimed in any one of the preceding claims having ring-like contacts which comprise the second contact surfaces, each ring-like contact being positioned at a respective one of the apertures and electrically contactable with respective
25 ones of the individual conductive layers.

8. The electrical connection device as claimed in any one of claims 1 to 6 having ring-like contacts which comprise the second contact surface, each ring-like
30 contact being positioned within a respective one of the apertures and electrically contactable with respective ones of the individual conductive layers.

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9. The electrical connection device as claimed in any one of the preceding claims wherein the insulating sleeves are provided in form of tubes.

5 10. The electrical connection device as claimed in claim 9 wherein each tube has a thread at one end.

11. The electrical connection device as claimed in claim 10 when dependent on claim 7 or 8 wherein the ring-like
10 contacts are provided in form of nuts that are receivable by the threads of the insulating tubes.

12. The electrical connection device as claimed in claim 11 wherein, in use, each conductive layer is in electrical
15 contact with a respective nut.

13. The electrical connection device as claimed in claim 12 wherein each nut has an electrical conductive surface on its thread.

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14. The electrical connection device as claimed in claim 13 wherein each nut is composed of an electrically conductive material.

25 15. The electrical connection device as claimed in any one of the preceding claims wherein the end-face is electrically insulating.

16. The electrical connection device as claimed in any
30 one of claims 1 to 14 wherein the end-face is electrically conductive.

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17. The electrical connection device as claimed in any one of the preceding claims arranged such that, when the electrical connection device is connected to the suitable other electrical device, a coupling means of the suitable other electrical device is positioned at least in part within a respective one of the insulating sleeves of the electrical connection device.

18. The electrical connection device as claimed in any one of the preceding claims wherein the multi-core machine cable is a three-core machine cable and the electrical connection device comprises three apertures and three insulating tubes associated with the apertures.

19. The electrical connection device as claimed in any one of the preceding claims wherein the body comprises an exterior surface portion that is metallic.

20. The electrical connection device as claimed in any one of the preceding claims wherein the body comprises an exterior surface portion that is electrically insulating.

21. The electrical connection device as claimed in any one of the preceding claims wherein the body is electrically insulating.

22. The electrical connection device as claimed in claims 21 wherein the body is composed of a polymeric material.

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23. The electrical connection device as claimed in any one of the preceding claims wherein each insulating sleeve is surrounded by a plurality of conductive layer which are

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electrically isolated so that, in use, a plurality of separate earth potential screens is established.

24. The electrical connection device as claimed in any
5 one of the preceding claims being suitable for delivery of more than 100 kW of power.

25. The electrical connection device as claimed in any
one of the preceding claims being suitable for delivery of
10 more than 1 MW of power.

26. An electrical connection device for connection to a suitable other electrical device the device comprising:
a multi-core machine cable of the type having
15 insulated cores individually surrounded by earth-potential layers,

a body having an end-face, the end-face having apertures,

a plurality of insulating sleeves extending about
20 respective apertures,

a plurality of core coupling means each being at least in part positioned in a respective sleeve, each core coupling means being connected to a respective core of the machine cable and having a first contact surface for
25 connecting to a terminal of the suitable other electrical device so as to provide electrical connections of the machine cable with the suitable other electrical device,

a plurality of spaced apart earth coupling means surrounding at least a portion of respective insulating
30 sleeves, each earth coupling means being connected to a respective earth-potential layer of the machine cable and having a second contact surface for connecting to an earth potential terminal of the suitable other electrical device

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so that within the electrical connection device the core coupling means are earth-potential screened from one another.

5 27. A system comprising:

at least one electrical connection devices as claimed in any one of claims 1 to 25,

at least one multi-core machine cable being of the type having insulated cores individually surrounded by
10 earth-potential layers and

at least one electrical machine,

wherein the system is arranged so that electricity is delivered through the or each machine cable and through the or each electrical connection device and wherein the
15 electricity associated with each core is individually earth-potential screened in the multi-core cable and in the or each electrical connection device.